

## Vladimir I. Slepnev

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- 2006** Chief Scientific Officer, Primera Biosystems
- 2005** Vice-President Research and Development, Co-founder of Primera Biosystems
- 2000-2005** Program Director, Molecular Biology, Sention Inc. (formerly Nemogen Inc.)
- 1995- 2000** Associate Research Scientist, Postdoctoral Fellow  
Yale University School of Medicine, Department of Cell Biology, Howard Hughes Medical Institute
- 1992-1995** Postdoctoral Fellow  
Institute Pasteur, Department of Immunology, Paris, France
- 1989-1992** Research Scientist, Junior Scientific Associate  
All-Russian Research Center of Molecular Diagnostics and Therapy, Moscow, Russia

### Awards

- 1992-1994** Fellowship from the French National Center of Scientific Research (Centre National de la Recherche Scientifique (CNRS)), France.
- 1995-1997** Fellowship from Muscular Dystrophy Association

### Education:

- 1992** Ph.D. Biochemistry, Russian Research Center of Molecular Diagnostics and Therapy (RCMDT), Moscow, Russia
- 1987** B.S. Chemistry (diploma with distinction of honor), Moscow State University, Moscow, Russia

### Publications:

Co-authored 1 issued and 12 pending US patent applications

1. Garcia EP, Dowding LA, Stanton LW, Slepnev VI. Scalable transcriptional analysis routine--multiplexed quantitative real-time polymerase chain reaction platform for gene expression analysis and molecular diagnostics. *J Mol Diagn.* 2005, 7(4), 444-54
2. Takei K, Slepnev VI, De Camilli P. Interactions of dynamin and amphiphysin with liposomes. *Methods Enzymol* 2001, 329, 478-486
3. Floyd SR, Porro EB, Slepnev VI, Ochoa GC, Tsai LH, De Camilli P., Amphiphysin binds the cdk5 regulatory subunit p35 and is phosphorylated by cdk5 and cdc2. *J Biol Chem.* 2001, 276, 8104-8110.
4. Slepnev V.I. and De Camilli P. Accessory factors in clathrin-dependent synaptic vesicle endocytosis. *Nature Rev. Neurosci.* 2000, 1, 616-172.

5. Berghs S, Aggujaro D, Dirkx R, Maksimova E, Stabach P, Hermel JM, Zhang JP, Philbrick W, Slepnev V, Ort T, Solimena M. betaIV spectrin, a new spectrin localized at axon initial segments and nodes of ranvier in the central and peripheral nervous system. *J Cell Biol.* 2000, 151, 985-1002.
6. Ochoa G.-C, Slepnev V.I, Neff .L, Ringstad N., Takei K., Daniell L., Kim W., Cao H., McNiven M., Baron R., De Camilli P. A functional link between dynamin and the actin cytoskeleton at podosomes. *J. Cell Biol.*, 2000, 150 , 377-89
7. Slepnev V.I., Ochoa G.-C., Butler M., De Camilli P. Tandem arrangement of the clathrin and AP-2 binding domains in amphiphysin 1, and disruption of clathrin coat function mediated by amphiphysin fragments comprising these sites. *J. Biol. Chem.*. 2000, 275, 17583-17589.
8. De Camilli P., Slepnev V.I., Shupliakov O., Brodin L. Synaptic vesicle endocytosis. In *Synapses*, editors: Cowan M., Sudhof T., Stevens C. John Hopkins Univ. Press, 2000, 217-274.
9. Rosenthal J.A., Chen H., Slepnev V.I., Pellegrini L., Salcini A.E., Di Fiore P., De Camilli P. The epsins define a family of proteins which interact with components of the clathrin coat and contain a new protein module. *J Biol. Chem.*, 1999, 274, 33959-33965.
10. Lai M.M., Hong J.J., Ruggiero A.M., Burnett P.E., Slepnev V.I., De Camilli P., Snyder S.H. The calcineurin/dynamin 1 complex as a calcium sensor for synaptic vesicles endocytosis. *J. Biol. Chem.*, 1999, 274, 25963-25966.
11. Takei K., Slepnev V.I.\*\*., Haucke V., De Camilli P., Functional partnership between amphiphysin and dynamin in clathrin-mediated endocytosis. *Nature Cell Biol.*, 1999, 1, 33-39.
12. Chen H., Slepnev V.I., Di Fiore P.P., De Camilli P., The interaction of Epsin and Eps15 with the clathrin adaptor AP-2 is inhibited by mitotic phosphorylation and enhanced by stimulation- dependent dephosphorylation in nerve terminals. *J. Biol. Chem.*, 1999, 274, 3257-3260.
13. Chen H., Fre S., Slepnev V.I., Capua M.R., Takei K., Butler M.H., Di Fiore P.P., De Camilli P. Epsin is an EH-domain-binding protein implicated in clathrin-mediated endocytosis. *Nature*, 1998, 394, 793-797.
14. Slepnev V.I., Ochoa G.C., Butler M.H., Grabs D., De Camilli P. Role of phosphorylation in regulation of the assembly of endocytic coat complexes. *Science*, 1998, 281, 821-824.
15. Takei K., Haucke V., Slepnev V., Farsad K., Salazar M., Chen H., De Camilli P. Generation of coated intermediates of clathrin-mediated endocytosis on protein-free liposomes. *Cell*, 1998, 94, 131-141.
16. Mundigl O., Ochoa G.C., David C., Slepnev V.I., Kabanov A., De Camilli P. Amphiphysin I antisense oligonucleotides inhibit neurite outgrowth in cultured hippocampal neurons. *J. Neurosci.*, 1998, 18, 93-103.
17. Bauerfeind R., David C., Grabs D., McPherson P.S., Nemoto Y., Slepnev V.I., Takei K., De Camilli P. Recycling of synaptic vesicles. *Adv. Pharmacol.*, 1998, 42, 253-257.
18. Slepnev V.I. and De Camilli, P. Endocytosis: an overview. In *Self-Assembling Complexes for Gene Delivery: From Chemistry to Clinical Trial*, editors: Seymour L., Kabanov A. and Felgner P., John Wiley Press, 1997, pp. 71-88.
19. Grabs D., Slepnev V.I., Songyang Z., David C., Lynch M., Cantley L.C., De Camilli P. The SH3 domain of amphiphysin binds the proline-rich domain of dynamin at a single site that defines a new SH3 binding consensus sequence. *J. Biol. Chem.*, 1997, 272(20), 13419-13425.
20. Burton J.L., Slepnev V.I, De Camilli, P. An evolutionarily conserved domain in a subfamily of Rabs is crucial for the interaction with the guanyl nucleotide exchange factor Mss4. *J. Biol. Chem.*, 1997, 272 (6), 3663-3668.
21. McPherson P.S., Garcia E.P., Slepnev V.I., David C., Zhang X., Grabs D., Sossin W.S., Bauerfeind R., Nemoto Y., De Camilli P. A presynaptic inositol 5-phosphatase. *Nature*, 1996, 379, 353-357.
22. Slepnev V.I., Phalente L., Labrousse H., Melik-Nubarov N.S., Mayau V., Goud B., Buttin G., Kabanov A.V Fatty acid acylated peroxidase as a model for the study of interactions of hydrophobically- modified proteins with mammalian cells. *Bioconjugate Chemistry*, 1995, 6, 608-615.
23. Yang C., Slepnev V.I.\*\* and Goud B. Rab proteins form in vivo complexes with two isoforms of GDI. *J. Biol. Chem.*, 1994, 269, 31891-31891.
24. Melik-Nubarov N.S., Suzdaltseva Yu.G., Priss E.L., Slepnev V.I., Kabanov A.V., Zhirmov O.P., Sveshnikov P.G., Severin E.S. Interaction of hydrophobized antiviral antibodies with influenza virus infected MDCK cells. *Biochemistry and Mol. Biology International*, 1993, 29, 939-947.
25. Kabanov A.V., Slepnev V.I., Kuznetsova L.E., Batrakova E.V., Alakhov V.Yu., MelikNubarov N.S., Sveshnikov P.G., Kabanov V.A. Pluronic micelles as a tool for low-molecular compound vector delivery into a cell: effect of Staphylococcus aureus enterotoxin B on cell loading with micelle incorporated fluorescent dye. *Biochemistry International*, 1992, 26, 1035-1042.
26. Slepnev V.I., Kuznetsova L.E., Gubin A.N., Batrakova E.V., Alakhov V.Yu., Kabanov A.V., Micelles of poly(oxyethylene)- poly(oxypropylene) block copolymer (pluronic) as a tool for low –molecular weight compound

delivery into a cell: phosphorylation of intracellular proteins with micelle incorporated ( $\gamma$ - $^{32}\text{P}$ ) ATP. *Biochemistry International*, 1992, 26, 587-595.

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29. Levitskii V.Iu., Melik-Nubarov N.S., Slepnev V.I., Shiksnis V.A., Mozhaev V.V., Regulation of the thermal-stability of enzymes by variation of the composition of the medium - native and modified alpha-chymotrypsin. *Molecular Biology*, 1990, 24, 990-997.
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